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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,222	04/23/2004	Richard A. Russell	017750-802	7748

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BUCHANAN, INGERSOLL & ROONEY PC  
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EXAMINER
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RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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10/20/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/830,222	<b>Applicant(s)</b> RUSSELL ET AL.	
	<b>Examiner</b> Andy S. Rao	<b>Art Unit</b> 2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,9-11,13,14,17,18 and 27-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8,12,15,16 and 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/07/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of the set of Group I claims 1-3, 6-8, 12, 15-16, and 19-26 as in the reply filed on 6/23/08 is acknowledged. The traversal is on the ground(s) that in examining the non-elected claims, the Examiner would search the same classes of art as would be required to search the invention of the elected claims, and would not reduce the workload on the USPTO or simplify prosecution of the application (Response to Restriction Requirement of 6/23/08: page 1, lines 11-17; page 2, lines 1-2). The Examiner flatly disagrees for the following reasons.

Firstly, the Examiner must note that the search queries of the two groups would be substantially different for the following reasons. Group I doesn't require the sole consideration of navigational information pertaining to a vehicle, but rather to only positional information, so while the restriction requirement initially assigned the group to the subclass of 348/116, a subclass such as 348/142 would also be a place delve for pertinent art (i.e. a non-vehicular implementation). This is all due the breadth of the claims associated with the elected first group as such a feature of the claim group unduly broadens the parameters of the Examiner's forthcoming search and creates a burdensome situation in terms of efficiently finding the best art. The 348/142 area would not be searched with regards to the second Group, because that group requires implementation the method in a vehicle (unmanned or otherwise). So the Examiner has shown beyond reproach that the same classes and search templates would not be used, nor are they interchangeable between the groups of claims.

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Also, with regards to Group II, the Examiner notes the following: since certain claims of the second group require that aerial vehicle be unmanned, the Examiner would also have to expand that particular search to claims 348/36-39 which discloses panoramic imaging, but in particular, contains art that relates to remotely controlled vehicles with tele-presence applications. Again, this particular area would not be consulted for the group one claims. The Examiner would also have to fashion an additional search for communications between an unmanned drone and a populated aerial aircraft- a feature which clearly has no possible association with the group I set of claims.

So the Examiner has shown in detail not only why, but how the searches for the two groups would be drastically different. One search could not possibly address the divergent inventions, and would place serious burden on this Examiner for the reasons discussed above.

The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-8, 12, 15-16, and 19-20, 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lofgren et al., (hereinafter referred to as "Lofgren").

Lofgren discloses a method for processing and outputting video frames (Lofgren: figures 5-6) comprising: receiving a stream of video frames (Lofgren: column 3, lines 65-67); inserting geo-location data into a video frame to generate a modified video frame (Lofgren: column 4, lines 40-50); and outputting the modified video frame (Lofgren: column 10, lines 50-60), as in the claim.

Regarding claim, Lofgren discloses receiving the geo-location data, wherein the geo-location data inserted into a particular video frame is based on the geo-location data of a scene in the particular video frame (Lofgren: column 3, lines 55-64; column 4, lines 10-15), as in the claim.

Regarding claim 3, Lofgren discloses wherein a time tag is also inserted into the video frame (Lofgren: column 4, lines 40-45: "file history"), as in the claim.

Regarding claim 6, Lofgren discloses storing the stream of video frames along with the associated geo-location data (Lofgren: column 4, lines 50-55), as in the claim.

Regarding claim 7, Lofgren discloses searching the stored geo-location data to identify geo-location data satisfying criteria specified in at least one search command (Lofgren: column 5, lines 5-15); and transmitting the identified geo-location data and video frames corresponding to the identified geo-location data (Lofgren: column 4, lines 1-6), as in the claim.

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Regarding claim 8, Lofgren discloses wherein the time tags associated with the video frames are stored along with the geo-location data (Lofgren: column 4, lines 40-50), as in the claim.

Regarding claim 12, Lofgren discloses generating an index using the geo-location data and the time tags (Lofgren: column 4, lines 47-52); and searching the index based on the geo-location data or the time tags, wherein the outputted modified video frames are those video frames which are associated with the searched for geo-location data or the time tags (Lofgren: column 5, lines 25-40), as in the claim.

Regarding claim 15, Lofgren discloses wherein the geo-location data is inserted into a visible portion of the video frame (Lofgren: column 5, lines 5-15), as in the claim.

Regarding claim 16, Lofgren discloses wherein the geo-location data is inserted into a non-visible portion of the video frame (Lofgren: column 7, lines 30-40), as in the claim.

Regarding claim 19, Lofgren discloses wherein the modified video frame is output onto a computer generated terrain map of a region of interest such that the modified video frame (Lofgren: column 3, lines 55-62), and any targets of interest are located within a proper geo-location within the displayed terrain map (Lofgren: column 1, lines 30-67; column 2, lines 1-53).

Lofgren discloses a system (Lofgren: figure 1) comprising: an antenna which receives a stream of video frames (Lofgren: figure 1, element 11: antenna inherently a part of the 'aerial platform'); a processor which inserts geo-location data into a video frame to generate a modified video frame (Lofgren: column 4, lines 40-50); and an output for outputting the modified video frame (Lofgren: column 10, lines 50-60), as in claim 20.

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Regarding claim 23, Lofgren discloses a transmitter connected to the output for transmitting the modified video frame (Lofgren: column 4, lines 30-40), as in the claim.

Regarding claims 24-25, Lofgren discloses a memory for storing the video frames along with associated geo-location data (Lofgren: column 4, lines 30-35), wherein the processor indexes the geo-location data, searches the geo-location data based on a search input, and the output modified video frame is a video frame corresponding to the search input (Lofgren: column 4, lines 30-50), as in the claim.

Regarding claim 26, Lofgren discloses wherein the memory also stores time tags and sensor data associated with each of the video frames (Lofgren: column 4, lines 40-45: “file history”), and wherein the processor indexes the geo-location data, searches the geo-location data, the time tags and/or the sensor data based on a search input, and the output modified video frame is a video frame corresponding to the search input (Lofgren: column 5, lines 5-25), as in the claim.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lofgren et al, (hereinafter referred to as “Lofgren”) in view of Josypenko.

Lofgren discloses a system (Lofgren: figure 1) comprising: an antenna which receives a stream of video frames (Lofgren: figure 1, element 11: antenna inherently a part of the 'aerial

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platform); a processor which inserts geo-location data into a video frame to generate a modified video frame (Lofgren: column 4, lines 40-50); and an output for outputting the modified video frame (Lofgren: column 10, lines 50-60), as in claims 21-22. However, Lofgren fails to particularly disclose wherein the antenna is a linear taper antenna that is arranged to receive and transmit radar signals. Josypenko discloses a tapered direct fed quadrifilar helix antenna that incorporates the use of a linear taper (Josypenko: column 5, lines 45-55) and further discloses the use of the antenna for receiving and transmitting radar signals (Josypenko: column 5, lines 10-25) in order to have a compact antenna with good cardioid characteristics with circular polarization (Josypenko: column 3, lines 60-67) in communications between fixed ground stations and mobile stations (Josypenko: column 1, lines 25-37). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the Josypenko antenna linear taper antenna into the Lofgren system as its transmission/reception means for its aerial platform in order to gain the benefits of having an antenna with desired cardioid characteristics with circular polarization to allow for communications between the mobile station of the aerial platform and the ground stations of the Lofgren system. The Lofgren system, now incorporating the Josypenko linear taper antenna, has all of the features of claims 21-22.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sharma discloses a finline antenna. Patterson discloses marking physical objects and related systems and methods.



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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao  
Primary Examiner  
Art Unit 2621

asr  
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Primary Examiner, Art Unit 2621  
October 13, 2008